

ABSTRACT

Title of work: Method for Assessment of the Effect of Selected Anesthetics on H-reflex in Laboratory Rat

Objective: To create an applicable method for recording of the H-reflex of freely moveable unanesthetized rats.

Methods: Three adult rats were each implanted in the right leg with stimulating electrodes in a flexible cuff on the tibial nerve and a pair of recording electrodes in the triceps surae muscle. After recovering it was evaluated if the electrodes are appropriate for stimulation of peripheral nerve and for recording of ongoing EMG and evoked EMG (H-reflex, M-response).

Results: It is possible to use stimulating electrodes in a flexible cuff and a pair of recording electrodes for recording ongoing EMG and evoked EMG (H-reflex, M-response) in freely moveable rats. The experiment did not determine which kind of metal is the most appropriate for conductor for recording high quality EMG.

Keywords: H-reflex, Electromyography, Implanted electrodes, Rat, Electrophysiology